# DATA PIPELINE FROM RAW DATA TO CLIMATE INFORMATION

Since the upcoming challenge of climate change is on a global dimension, it has, therefore, to be addressed on a global scale. The interoperability of data, information, and knowledge, as well as all ready-to-use application packages, is essential to increase the efficiency of knowledge generation. Therefore, the FAIR principles play a special role in designing Climate Services Information Systems (CSIS). Here the data pipeline from raw data to usable information and knowledge on demand will be presented. It discusses concepts of standardization for analysis-ready data and datacubes where developed tools are in place or can be deployed. Realizing FAIR principles for existing datasets in most optimal way and identify opportunities to establish information systems to produce knowledge on demand with the blueprint of the Climate Resilience Application Packages of the CLINT Project as well as findings of the latest OGC Climate and Disaster Resilience Pilot.
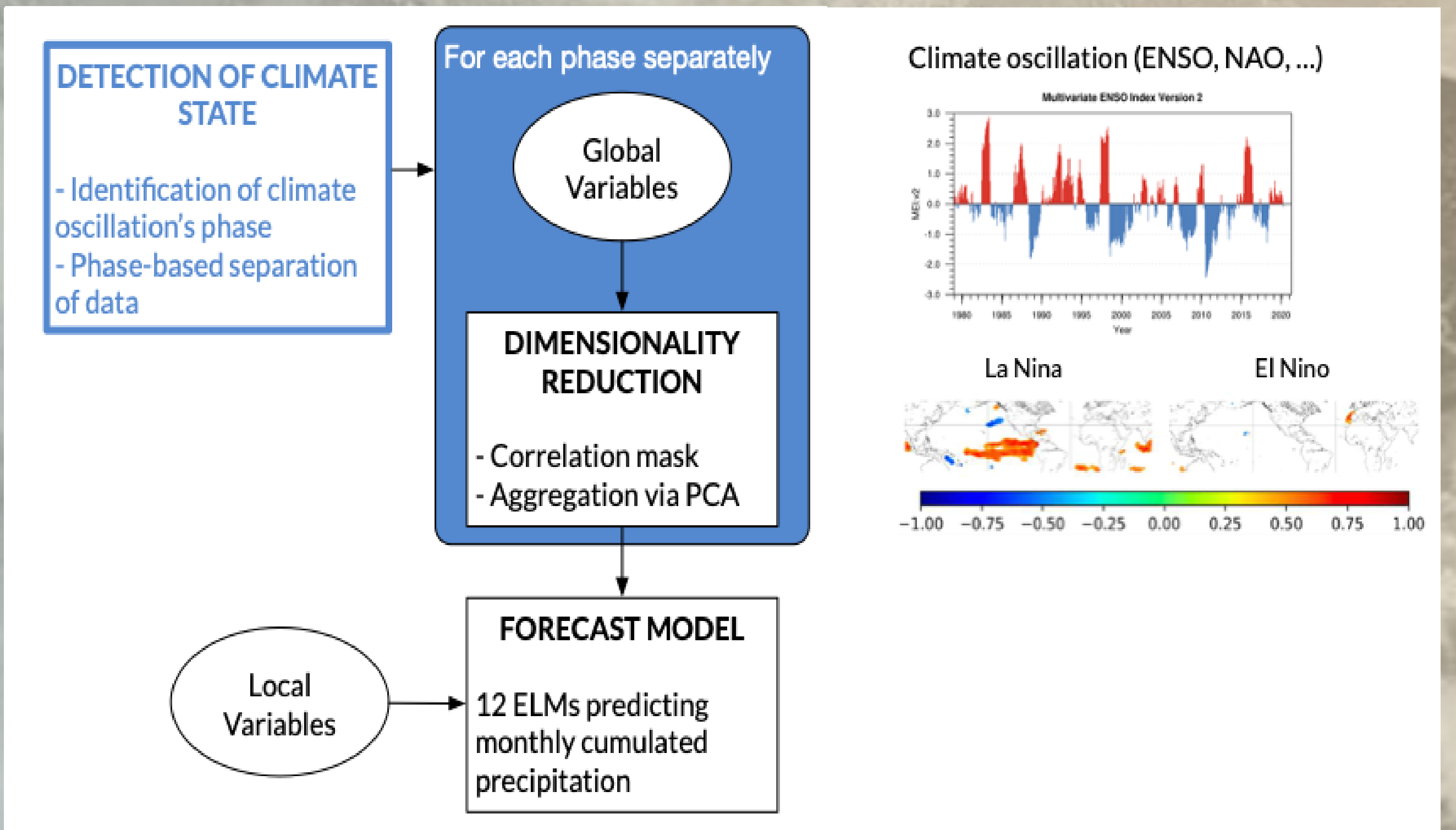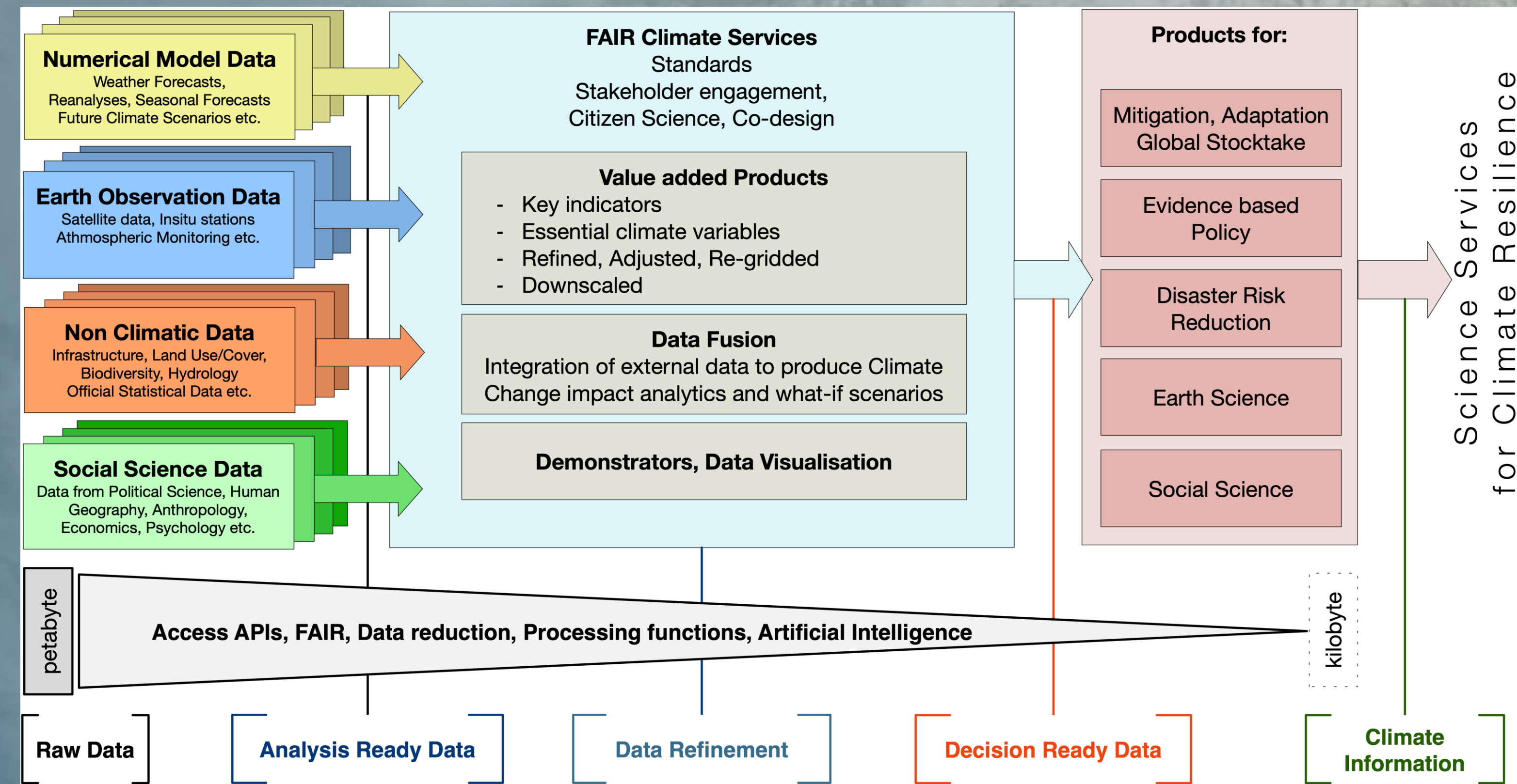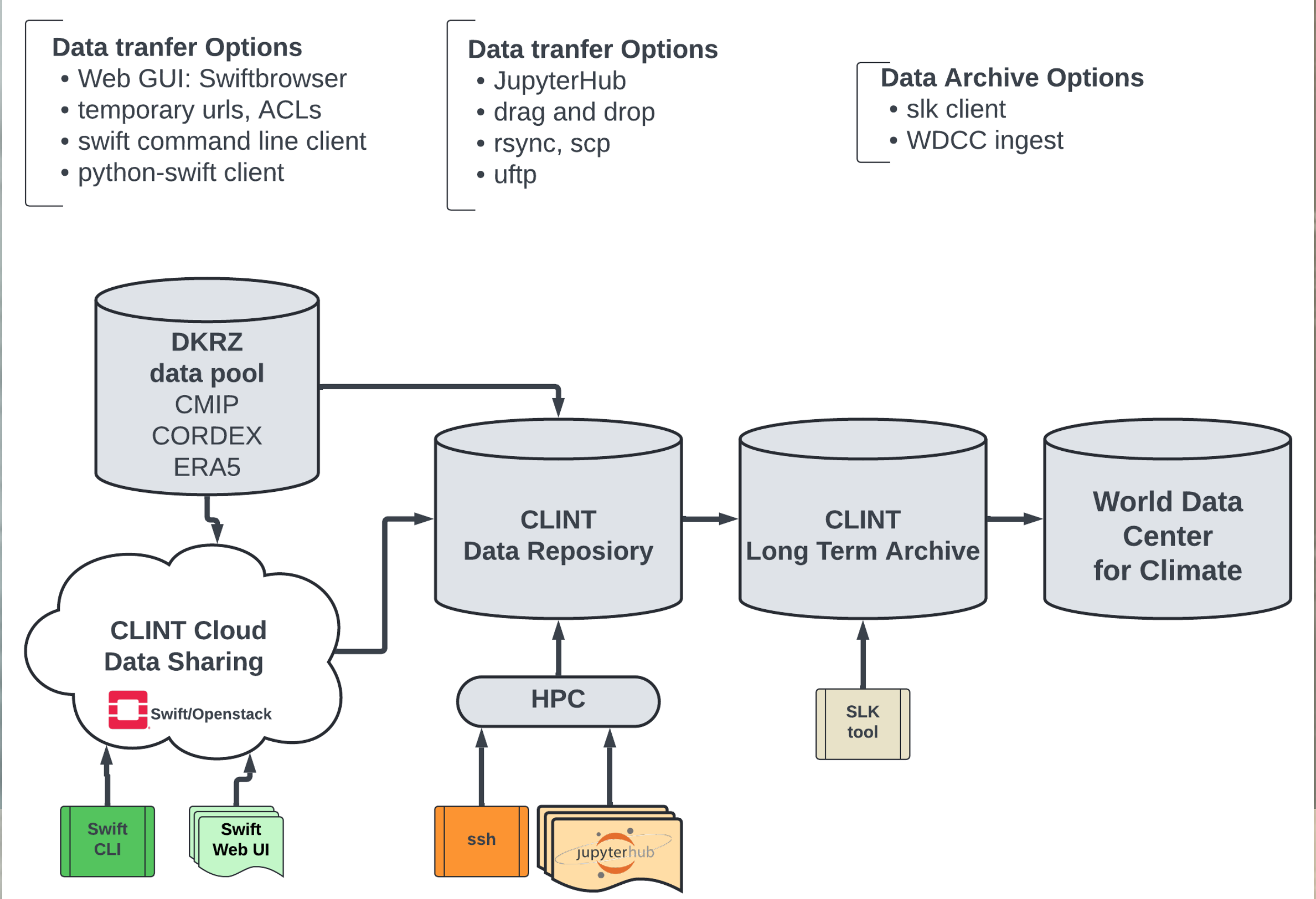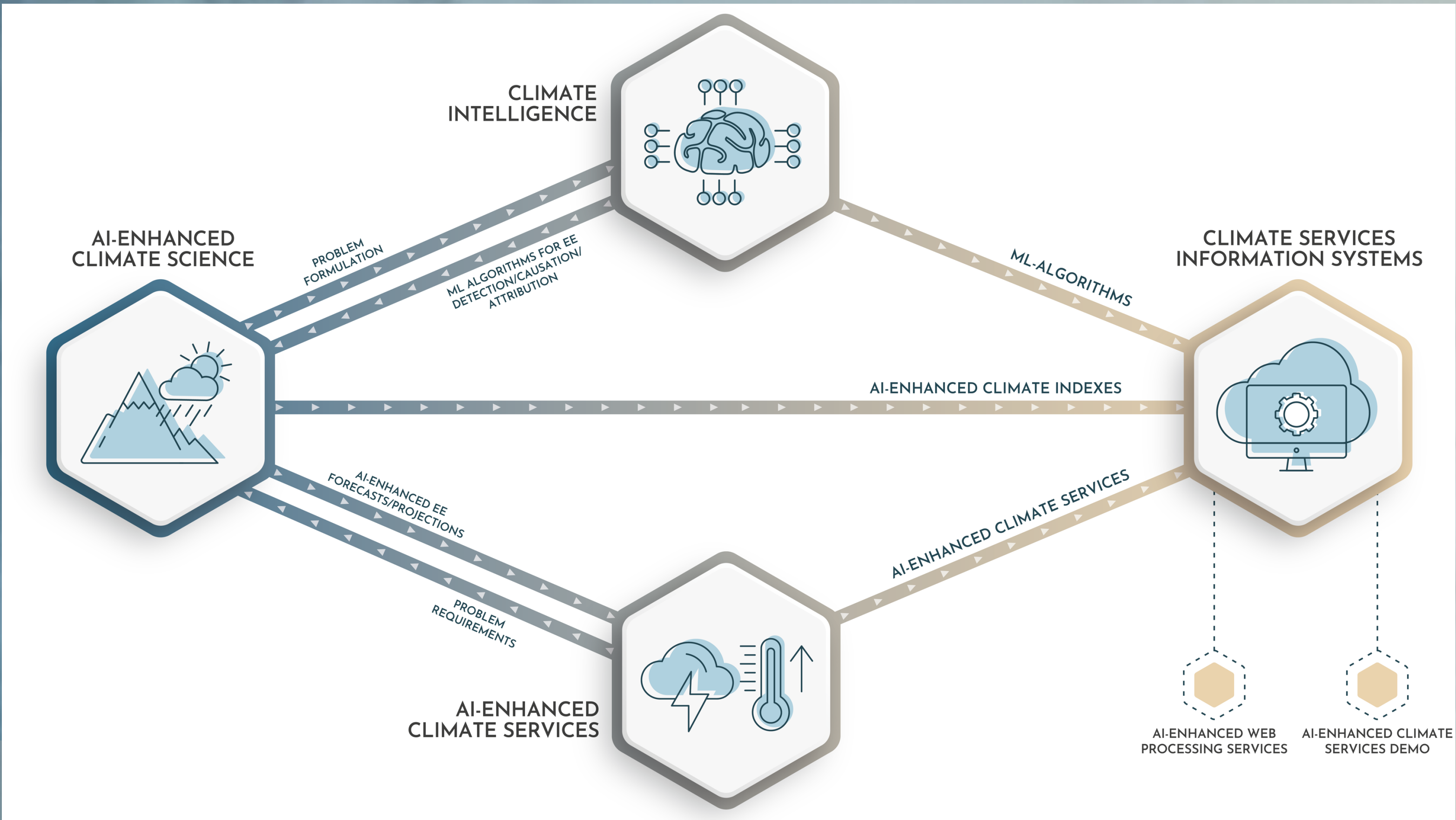
Not only does data need to be findable, accessible, interoperable, and reusable, but the entire climate information ecosystem around the data should adhere to the same principles. In case of achieving 'land degradation neutrality' countries are in need of access to the best available data, and tools or generate information on demand to estimate the Sustainable Development Goal (SDG) indicator 15.3.1, Proportion of land that Is degraded over total land area, and monitor progress towards land degradation neutrality (LDN). The United Nation Convention Combat Desertification (UNCCD) is the custodian agency of this indicator and achieving LDN is a strong vehicle for country parties to implement the convention. This results in a worldwide demand on analysis ready data for SDG 15.3.1 to support reporting, monitoring, and verification and enhance action strategies and implementation plans.

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United Nations Convention to Combat Desertification

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INTEGRATED DROUGHT MANAGEMENT PROGRAMME

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